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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,061	01/15/2004	John A. Moore	1776-0014	5102

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EXAMINER

COLAN, GIOVANNA B

ART UNIT	PAPER NUMBER
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2162

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/758,061

Applicant(s)

MOORE, JOHN A.

Examiner

Giovanna Colan

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>01/15/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is issued in response to applicant filed application on 01/15/2004.
2. Claims 1 –20 are pending.
3. The information disclosure statement (IDS) submitted 01/15/2004. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 –2, 5 – 12, 14 – 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Toda et al. (Toda hereinafter) (US Patent No. 2002/0037100 A1, filed: August 20, 2001).

Regarding Claim 1, Toda discloses a method for managing image files in a host system comprising:

identifying an image file stored in secondary storage for a host system (Page 8, [0135], lines 5 – 10, Toda); and

downgrading the identified image file (Page 8, [0135], lines 1 – 5, Toda).

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Regarding Claim 2, Toda discloses a method further comprising:

storing the downgraded file in secondary storage (Page 9, [0142], lines 1 – 3, loaded onto the RAM, Toda); and

storing the identified image file in tertiary storage (Fig. 28, item 2804, Page 8, [0135], lines 4 – 10, external storage device, Toda).

Regarding Claim 5, Toda discloses a method, the downgrading further comprising:

reducing the resolution of the identified image file (Page 1, [0006], lines 14 – 17, Toda).

Regarding Claim 6, Toda discloses a method, the downgrading further comprising:

reducing the bit size of the pixels in the identified image file (Page 4, [0063], lines 6 – 9, Toda).

Regarding Claim 7, Toda discloses a method, the downgrading further comprising:

converting a color image from one color format to another color format that requires less data to represent color in the identified image file (Page 9, [0150], lines 2 – 3, Toda).

Regarding Claim 8, Toda discloses a method, the downgrading further comprising:

converting a color image to a color palette version of the color image (Page 1, [0007], lines 10 – 17, Toda).

Regarding Claim 9, Toda discloses a method, the downgrading further comprising:

combining a plurality of downgrade operations to reduce the size of the identified image file (Page 8, [0135], lines 3 – 5, image compression process using programs, Toda).

Regarding Claim 10, Toda discloses a method, the downgrading further comprising:

retrieving a full resolution version of the identified image file from tertiary storage (Fig. 1, items 100, 104, and 105, Page 3, [0049], lines 15 – 16, Toda¹); and

performing a downgrade operation on the full resolution version of the identified image file (Fig. 1, items 105, and 106, Page 3, [0049] and [0053], lines 15 – 16 and 1 – 3, lower its resolution; respectively, Toda).

Regarding Claim 11, Toda discloses an method, the image file identification including:

comparing file metadata to a downgrade threshold (Page 6, [0094], lines 1 – 7, Toda).

Regarding Claim 12, Toda discloses a method, the comparison including:
comparing file metadata to a file frequency threshold (Page 4 and 6, [0064] and [0094], lines 2 – 5 and 1 – 7; respectively, Toda).

Regarding Claim 14, Toda discloses a method, the comparison including:
comparing file metadata to a classification threshold (Page 5, [0087] and [0089], lines 8 – 10 and 11 – 16; respectively, Toda²).

Regarding Claim 15, Toda discloses a system for managing image files in a host system comprising:

a file selector for identifying an image file stored in secondary storage for a host system (Page 8, [0135], lines 2 – 10, a CPU 2801, Toda); and

a file reducer for downgrading the identified image file (Page 8, [0135], lines 5 – 7, image compression process, Toda).

Regarding Claim 16, Toda discloses a system further comprising:

¹ Wherein the image A (before reduction) corresponds to the full resolution version of the identified image file claimed.

² Wherein the step which binarizes a pixel to black or to white if the absolute value exceeds or not a threshold value corresponds to the step of comparing as claimed; and the threshold value corresponds to the classification threshold as claimed.

a file controller for storing the downgraded file in secondary storage and for storing the identified image file in tertiary storage (Page 6, [0094], lines 2 – 6, reduction parameter controller, Toda).

Regarding Claim 17, Toda discloses a system wherein the file reducer includes a compressor for compressing the identified image file (Page 3, [0048], lines 17 – 19, compression unit, Toda).

Regarding Claim 18, Toda discloses a system wherein the file reducer includes a color reducer for converting a color image from one color format to another color format that uses less data to represent color (Page 3, [0049], lines 15 – 19, reduction unit, Toda).

Regarding Claim 19, Toda discloses a system wherein the file reducer includes an image resolution reducer for reducing the resolution of the identified image file (Page 6, [0093], lines 1 – 6, Toda).

Regarding Claim 20, Toda discloses a system wherein the file reducer includes a bit depth reducer for reducing pixel bit size for pixels in the identified image file (Page 6, [0103], and [0106], lines 1 – 3 and 3 – 6, color reducer; respectively, Toda).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Toda et al. (Toda hereinafter) (US Patent No. 2002/0037100 A1, filed: August 20, 2001) in view of Gleicher et al. (Gleicher hereinafter) (US Patent No. 5,218,431, issued: June 8, 1993).

Regarding Claim 3, Toda discloses all the limitations as disclosed above including downgrading an image file (Page 8, [0135], lines 1 – 5, Toda). However, Toda is silent with respect to lossless compression. On the other hand, Gleicher discloses a system and method that performs a lossless compression on the identified image file (Col. 4, lines 52 – 57, Gleicher). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the Gleicher's teachings to the system Toda. Skilled artisan would have been motivated to do so, as suggested by Gleicher (Col. 4, lines 52 – 57, Gleicher), to provide a method such that original image can be reconstructed exactly, with no loss of information, on the same computer that compressed it or on a smaller scientific or engineering workstation. In addition, both of the references (Toda and Gleicher) teach features that are directed to analogous art

and they are directed to the same field of endeavor, such as, databases management systems, image compression, and downgrading images. This close relation between both of the references highly suggests an expectation of success.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Toda et al. (Toda hereinafter) (US Patent No. 2002/0037100 A1, filed: August 20, 2001) in view of Bryniarski et al. (Bryniarski hereinafter) (US Patent No. 5,974,182, issued: October 26, 1999).

Regarding Claim 4, Toda discloses all the limitations as disclosed above including downgrading an image file (Page 8, [0135], lines 1 – 5, Toda). However, Toda is silent with respect to lossy compression. On the other hand, Bryniarski discloses a system and method that performs a lossy compression on the identified image file (Col. 2, lines 62 – 65, Bryniarski). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the Bryniarski's teachings to the system Toda. Skilled artisan would have been motivated to do so, as suggested by Bryniarski (Col. 1, lines 29 – 32, Bryniarski), to provide a higher compression rate without visible degradation in an image, by taken advantage of the human visual system threshold. In addition, both of the references (Toda and Bryniarski) teach features that are directed to analogous art and they are directed to the same field of endeavor, such as, databases management systems, image compression, and downgrading images.

This close relation between both of the references highly suggests an expectation of success.

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Toda et al. (Toda hereinafter) (US Patent No. 2002/0037100 A1, filed: August 20, 2001) in view of Sitka (US Patent No. 6,330,572 B1, issued: December 11, 2001).

Regarding Claim 13, Toda discloses all the limitations as disclosed above including thresholds (Page 4 and 6, [0064] and [0094], lines 2 – 5 and 1 – 7; respectively, Toda). However, Toda is silent with respect to last access time threshold. On the other hand, Sitka discloses a system and method that comparing file metadata to a last access time threshold (Col. 18, lines 30 – 37, Sitka). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the Sitka's teachings to the system Toda. Skilled artisan would have been motivated to do so, as suggested by Sitka (Col. 2, lines 43 – 50, Sitka), to alleviate excessive access times in retrieving images; and to avoid the scattering of associated images across diverse storage media having different access times, and resulting delays in incorporating such images into the workflow of the client application. In addition, both of the references (Toda and Sitka) teach features that are directed to analogous art and they are directed to the same field of endeavor, such as, databases management systems, and image management and storage. This close relation between both of the references highly suggests an expectation of success.

Prior Art Made Of Record

1. Toda et al. (US Patent No. 2002/0037100 A1, filed: August 20, 2001) discloses image processing apparatus and method.
2. Gleicher et al. (Gleicher hereinafter) (US Patent No. 5,218,431, issued: June 8, 1993) discloses a raster image lossless compression and decompression with dynamic color lookup and two dimensional area encoding.
3. Bryniarski et al. (US Patent No. 5,974,182, issued: October 26, 1999) discloses a photographic image compression method and system.
4. Sitka (US Patent No. 6,330,572 B1, issued: December 11, 2001) discloses a hierarchical data storage management.

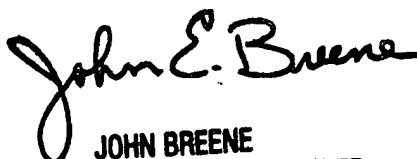
Points Of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Giovanna Colan whose telephone number is (571) 272-2752. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Giovanna Colan
Examiner
Art Unit 2162
June 21, 2006


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